TECHNICAL NOTES

February 10, 2003

MO-1 Technical Note Number 10 (Revised)

Re: NASIS - Oi, Oe, and Oa Horizons (Unsaturated)

The top of any surface horizon identified as an "O" horizon, whether Oi, Oe, or Oa, is considered the soil surface. These horizons, when at the soil surface and too thin to qualify as a histic epipedon, are now entered in NASIS.

The NASIS fields to be completed for these unsaturated organic surface horizons will be:

- horizon designation, master
- horizon designation, letter suffix
- horizon depth to top
- horizon depth to bottom
- terms used in lieu of texture 1/

1/ Acceptable choices for terms used to describe thin unsaturated organic surface horizons are:

- SPM Slightly decomposed plant material (Oi)
- MPM Moderately decomposed plant material (Oe)
- HPM Highly decomposed plant material (Oa)

These terms should not be used to describe Histic epipedons or organic horizons in Histosols except for Folists. See MO Technical Note #34 for instructions on NASIS data population for saturated organic layers/horizons.

With regards to soils having their surface beginning at the top of a thin organic horizon, the interpretation generator within NASIS is designed to apply the criteria for any specific interpretation based on the depths to restrictive features starting from the mineral soil surface.

Example - A forest soil having an Oi horizon from 0 to 7 cm and mineral soil from 7 to 102 cm over bedrock would be rated on a depth to bedrock of 7 to 102 cm (38 inches) versus 0 to 102 cm (41 inches).

With the addition of thin O horizons into NASIS, there is direction needed as to the entries needed for Wind Erodibility Group (WEG), Wind Erodibility Index (WEI), and T-factor.

The WEG and WEI ratings will be based on the mineral soil surface unless the organic soil material is thick enough to qualify as a histic epipedon. (See NSSH, part 618.72; exhibit 618-16.)

The T-factor rating will be based on depth to root limiting subsurface soil layers with measurement beginning at the mineral soil surface unless the organic soil material is thick enough to qualify as a histic epipedon. T-factor criteria is followed as documented in the NSSH, part 618.62; exhibit 618-14.